

6/13

Application No. 09/589,675

B1
SUBC1
1. (amended) A device for irradiating tissue, comprising:
a fluorescent element positioned to receive pump radiation having a narrow spectral band and responsively generate emitted radiation, the emitted radiation having peak emission outside said narrow spectral band; and
a redirector for redirecting at least a portion of the emitted radiation toward a tissue target.

B2
SUBC1
17. (amended) A device for irradiating tissue, comprising:
a fluorescent element positioned to receive pump radiation and responsively generate emitted radiation, the emitted radiation having substantially different spectral characteristics with respect to the incident radiation; and
a redirector for redirecting at least a portion of the emitted radiation toward a tissue target, wherein the redirector comprises a waveguide including a reflective entrance face and reflective walls, the entrance face having a substantially transmissive aperture formed therein for admitting pump radiation into the waveguide.

B3
SUBC1
22. (amended) A method for irradiating tissue, comprising the steps of:
directing pump radiation within a narrow spectral band onto a fluorescent element;
responsively generating emitted radiation at the fluorescent element, the emitted radiation having peak emission outside said narrow spectral band of the radiation;
receiving a portion of the emitted radiation at a redirector; and
redirecting the received portion of the emitted radiation toward a tissue target.

B4
SUBC1
26. (amended) A method for irradiating tissue, comprising the steps of:
directing pump radiation onto a fluorescent element;
responsively generating emitted radiation at the fluorescent element, the emitted radiation having spectral characteristics substantially different from the incident radiation;
receiving a portion of the emitted radiation at a redirector; and

7/13

Application No. 09/589,675

34
 redirecting the received portion of the emitted radiation toward a tissue target, wherein the step of redirecting the emitted radiation includes reflecting the emitted radiation from the boundary between a waveguide core and cladding material, the cladding material having a substantially lower index of refraction than the waveguide core.

35
 33. (amended) A system for irradiating tissue, comprising:

5068
 a pump radiation source for generating pump radiation having a narrow spectral band;
 a fluorescent element positioned to receive the pump radiation and responsively generate emitted radiation, the emitted radiation having peak emission outside said narrow spectral band; and
 a redirector for redirecting at least a portion of the emitted radiation toward a tissue target.